

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 21

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BOARD OF PATENT APPEALS  
AND INTERFERENCES

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JACK RICHARD SIMPSON

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Appeal No. 2002-1913  
Application No. 09/054,565

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ON BRIEF

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Before COHEN, ABRAMS and McQUADE, Administrative Patent Judges.  
McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Jack Richard Simpson appeals from the final rejection (Paper No. 16) of claims 1 through 10, 14 through 21, 24 and 26 through 29. Claims 22, 23 and 25, the only other claims pending in the application, stand withdrawn from consideration as being directed to a non-elected species of the appellant's invention.

THE INVENTION

The invention relates to "rotary cutting dies for cutting corrugated board and the stripping of scrap therefrom, and more particularly to a resilient stripping member for efficiently

separating scrap material from an associated product blank and effectively controlling the exit trajectory of the scrap from the cutting die apparatus" (specification, page 1). Representative claim 1 reads as follows:

1. A rotary cutting die for cooperating with a rotary anvil to cut corrugated board comprising:

(a) a base;

(b) at least one scrap cutting blade secured to the base of the cutting die for cutting a piece of scrap from a sheet of corrugated board that is directed through a nip defined between the cutting die and the anvil;

(c) at least one scrap stripper mounted to the base adjacent the blade for stripping a cut scrap piece from the blade and for urging the cut scrap piece against the anvil as the cut scrap piece exits the nip;

(d) at least one scrap stripper being constructed of a resilient and compressible material and including a base, and a flexible finger integral with the base and extending outwardly over the base and at an acute angle with respect to the base such that an opening is defined between the angled finger and the base; and

(e) wherein the flexible finger is movable between a retracted position where the finger lies adjacent the base and an extended position where at least a portion of the finger is separated from the base.

#### THE PRIOR ART

The references relied on by the examiner to support the final rejection are:

Wright	2,402,223	June 18, 1946
Rilitz et al. (Rilitz)	5,161,442	Nov. 10, 1992
Smithwick, Jr. et al. (Smithwick)	5,636,559	June 10, 1997
Okonski	5,701,789	Dec. 30, 1997

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THE REJECTIONS

Claims 8 through 10, 14, 16, 17, 19, 26 and 28 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter the appellant regards as the invention.

Claims 1 through 4, 6, 15 through 17, 19, 21, 24, 26 and 28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Rilitz.

Claims 5, 7, 18 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rilitz.

Claims 1 through 6, 8 through 10, 14 through 17, 19, 21, 24, 26, 28 and 29 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Okonski.

Claims 7, 18 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Okonski.

Claims 1 through 10, 14 through 21, 24 and 26 through 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smithwick in view of Okonski.

Claims 1 through 10, 14 through 21, 24 and 26 through 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smithwick in view of Wright.

Attention is directed to the brief (Paper No. 18) and answer (Paper No. 19) for the respective positions of the appellant and examiner regarding the merits of these rejections.

#### DISCUSSION

I. The 35 U.S.C. § 112, second paragraph, of claims 8 through 10, 14, 16, 17, 19, 26 and 28

The examiner considers claims 8 through 10, 14, 16, 17, 19, 26 and 28 to be indefinite for the following reasons:

i. In claim 8, clause (b) the term "it" is vague and indefinite. What is "it" referring to? The same applies to the rest of the claims. In line 9, the phrase "the direction of movement.." lacks clear antecedent basis.

ii. The following phrases lack clear antecedent basis: (claim 9) "the height"; (claim 16) "the direction of travel of the cutting die" (no "travel direction" has been set forth for the cutting die); and (claim 26) "the influence of centrifugal force".

iii. Claim 16 is vague and indefinite in that it is not clear what the claim encompasses. What is encompassed by "adapted to work in conjunction with a rotary anvil"? How is the rotary die "adapted to work"? Due to the nature of the art, the scope of the limitation is unascertainable. Substantially the same applies to claim 26.

iv. Claim 28 is vague and indefinite in that it is not clear what the claim encompasses. What is the claim referring to and where is this shown in the drawings? Moreover, which "base" is the claim referring to, the base of the cutting die or the base of the stripper? [answer, pages 3 and 4].

The appellant concedes that the rejection is well taken to the extent that it is based on the terms "it" in claim 8 and "base" in claim 28, but disputes the other reasons advanced by the examiner (see pages 5 through 7 in the brief). Responding to the appellant's arguments, the examiner in turn concedes the points raised by the appellant (see pages 8 and 9 in the answer).<sup>1</sup> Consistent with these concessions, we shall sustain the standing 35 U.S.C. § 112, second paragraph, rejection with respect to claims 8 and 28, and claims 9, 10 and 14 which depend from claim 8, but not with respect to claims 16, 17, 19 and 26.<sup>2</sup>

II. The 35 U.S.C. § 102(b) rejection of claims 1 through 4, 6, 15 through 17, 19, 21, 24, 26 and 28 as being anticipated by Rilitz

Rilitz discloses a rotary cross cutter for severing a running web of paper, foil or other relatively thin flexible material into panels, sheets or lengths of a desired size and shape. The cutter comprises an upper rotary drum 1a supporting a

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<sup>1</sup> Having conceded these points, it is unclear why the examiner did not simply withdraw the rejection as to the affected claims.

<sup>2</sup> Although the examiner indicates that the criticism of "it" in claim 8 "applies to the rest of the claims," we are unable to find, and the examiner has not pointed out, any additional recitations of the term "it" which raise indefiniteness problems.

knife 11, a knife-clamping device 9 and a guide 14, and a lower rotary drum 2a supporting a knife 8, a knife-clamping device 7 and a guide 13, with the drums being rotatable to bring the knives into cooperative engagement to sever the web 3. The guides, which are made of rubber or other suitable elastomeric material and located adjacent the rears of their respective knives, prevent the web from adhering to the rotary drums and steer it toward the cutting locus (see column 4, lines 28 through 57; and column 5, line 23, through column 6, line 2). Figure 2 shows each guide as consisting of a base secured to a respective knife-clamping device and a lip-shaped deflector extending upwardly from the base at an angle inclined opposite to the rotational direction of the drum. Of note is that "the radially outermost portion of the deflector [or guide] 13 extends at least close to the circular path for the cutting edge 8a of the knife 8" (column 4, lines 40 through 42).

Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). In other words, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field

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of the invention. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). It is not necessary that the reference teach what the subject application teaches, but only that the claim read on something disclosed in the reference, i.e., that all of the limitations in the claim be found in or fully met by the reference. Kalman v. Kimberly Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

In explaining how and why independent claims 1 and 15 are fully met by Rilitz, the examiner reads the limitations in these claims pertaining to the base (claim 1) or board (claim 15), the scrap cutting blade and the scrap stripper on the knife-clamping device 7, the knife 8 and the guide 13, respectively, of Rilitz's lower rotary drum 2a (see pages 4 and 9 through 12 in the answer). The appellant counters that since Rilitz does not relate to a die cutter for cutting and ejecting scrap from a corrugated board, it fails to meet the various functional limitations in claims 1 and 15 which define the scrap cutting blade and the scrap stripper, and that Rilitz additionally fails to meet the structural limitations in these claims defining the scrap stripper (see pages 7 through 10 in the brief).

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The examiner's position here is well founded; the appellant's is not.

As accurately pointed out by the appellant, Rilitz does not describe the lower rotary drum 2a, knife 8, knife-clamping device 7 and guide 13 in terms of being a die cutter for cutting and ejecting scrap from a corrugated board. Claims 1 and 15, however, recite a rotary cutting die per se, not a rotary cutting die in combination with a cooperating anvil and/or a corrugated board, and not a method of cutting corrugated board passing between a rotary cutting die and an anvil. The appellant has not cogently explained or established, nor is it apparent, why Rilitz's lower rotary drum 2a and the components mounted thereon are not inherently capable of use as a die cutter for cutting and ejecting scrap from a corrugated board. Thus, Rilitz meets the functional limitations in claims 1 and 15 under principles of inherency. Furthermore, Figure 2 of Rilitz clearly shows that the guide 13 comprises a base and a flexible finger (claim 1) or outer flexible portion (claim 15) which meet the scrap stripper structural limitations in claims 1 and 15.

Thus, the appellant's position that the subject matter recited in claims 1 and 15 distinguishes over Rilitz is not persuasive. Accordingly, we shall sustain the standing 35 U.S.C.



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§ 102(b) rejection of claims 1 and 15 as being anticipated by Rilitz.

We also shall sustain the standing 35 U.S.C. § 102(b) rejection of dependent claims 2 through 4, 6, 16, 17, 19, 21, 24, 26 and 28 as being anticipated by Rilitz since the appellant has not challenged such with any reasonable specificity, thereby allowing these claims to stand or fall with parent claims 1 and 15 (see In re Nielson, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987)).

III. The 35 U.S.C. § 103(a) rejection of claims 5, 7, 18 and 20 as being unpatentable over Rilitz

We shall sustain the standing 35 U.S.C. § 103(a) rejection of dependent claims 5, 7, 18 and 20 as being unpatentable over Rilitz since the appellant has not challenged such with any reasonable specificity, thereby allowing these claims to stand or fall with parent claims 1 and 15 (see In re Nielson, supra).

IV. The 35 U.S.C. § 102(e) rejection of claims 1 through 6, 8 through 10, 14 through 17, 19, 21, 24, 26, 28 and 29 as being anticipated by Okonski

Okonski discloses a cutting die system for forming patterns in a web of sheet-like material such as paper. The system 10

includes a rotatable die holder 20, a steel cutting die plate 30, a raised pattern surface 50 on the cutting die plate for compressing or cutting out material from the web 70, a series of push pattern projections 40 partially cut out from and extending outwardly from the cutting die plate, and an anvil 60 disposed adjacent the rotatable die holder. According to Okonski,

[w]hen the cutting die plate 30 rotates in its position as mounted on the die holder 20, the cutting pattern 50 cuts the pattern thereby generating scrap material or waste from the web or blank 70. The push pattern projections 40 cause the scrap material or waste from the web or blank to be resiliently pushed away from the system 10 as it is cut to permit for remote waste collection. Because the push patten projections 40 are oriented in the direction of rotation 14 which is complementary to the direction of rotation of the die holder 20 and the anvil 60, the die holder 20 and the anvil 60 are caused to compress the push patterns 40 during the cutting of the web or blank without damage to the anvil 60 [column 4, line 62 through column 5, line 7].

As persuasively argued by the appellant (see pages 10 through 13 in the brief), the examiner's determination (see pages 5 and 12 through 15 in the answer) that the structural limitations in independent claims 1, 8 and 15 relating to the scrap stripper are met by Okonski's push patterns 40 is unsound. Claim 1 requires a scrap stripper which includes "a base, and a flexible finger integral with the base and extending outwardly over the base and at an acute angle with respect to the base such that an opening is defined between the angled finger and the

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base." Claim 8 requires a scrap stripper "having a base and a flexible, angled finger . . . wherein the flexible finger is integral with the base and extends outwardly over the base at an acute angle with respect to the base such that an opening is defined between the angle finger and the base." Claim 15 requires a scrap stripper which includes "a base, an outer flexible portion extending outwardly over the base and at an acute angle with respect to the base . . . and an open relief area defined intermediately between the outer portion and the base within the scrap stripper." Notwithstanding the examiner's finding to the contrary, the portion of Okonski's cutting die plate 30 from which the push pattern projections 40 are partially cut does not constitute a base as so defined.

Since Okonski does not meet all of the limitations in independent claims 1, 8 and 15, we shall not sustain the standing 35 U.S.C. § 102(e) rejection of claims 1, 8 and 15, and dependent claims 2 through 6, 9, 10, 14, 16, 17, 19, 21, 24, 26, 28 and 29, as being anticipated by Okonski.

V. The 35 U.S.C. § 103(a) rejection of claims 7, 18 and 20 as being unpatentable over Okonski

Because Okonski would not have suggested a rotary cutting die meeting the scrap stripper structural limitations in parent

claims 1 and 15, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of dependent claims 7, 18 and 20 as being unpatentable over Okonski.

VI. The 35 U.S.C. § 103(a) rejection of claims 1 through 10, 14 through 21, 24 and 26 through 29 as being unpatentable over Smithwick in view of Okonski

Smithwick discloses a rotary die cutter die for making container blanks from corrugated paper board. The die cutter 100 includes an upper die roll 102, a lower anvil roll 104, and a cutting die 108 fixed to the die roll 102. The cutting die 103 comprises a die board 110, steel cutting rules 112, and a resilient scrap ejector 10 made of a closed cell, high density foam rubber. The scrap ejector may take the forms shown in Figures 3, 4, 7 and 8.

Conceding that Smithwick's scrap ejector 10 does not meet the above discussed scrap stripper structural limitations in independent claims 1, 8 and 15, the examiner concludes that it would have been obvious to modify this scrap stripper in view of Okonski's push pattern projections 40 to cure this shortcoming. As explained above, however, Okonski is deficient with respect to the limitations at issue. Moreover, there is nothing in Okonski's disclosure of the push pattern projections 40 which

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would have suggested any relevant modification of Smithwick's foam rubber scrap ejector.

Therefore, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claims 1, 8 and 15, and dependent claims 2 through 7, 9, 10, 14, 16 through 21, 24 and 26 through 29, as being unpatentable over Smithwick in view of Okonski.

VII. The 35 U.S.C. § 103(a) rejection of claims 1 through 10, 14 through 21, 24 and 26 through 29 as being unpatentable over Smithwick in view of Wright

We shall not sustain the standing 35 U.S.C. § 103(a) rejection of claims 1 through 10, 14 through 21, 24 and 26 through 29 as being unpatentable over Smithwick in view of Wright given the examiner's concession that it is unsound (see page 18 in the answer).<sup>3</sup>

#### SUMMARY

The decision of the examiner:

a) to reject claims 8 through 10, 14, 16, 17, 19, 26 and 28 under 35 U.S.C. § 112, second paragraph, is affirmed with respect to claims 8 through 10, 14 and 28, and reversed with respect to claims 16, 17, 19 and 26;

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<sup>3</sup> Once again, it is unclear why the examiner did not simply withdraw the rejection.

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b) to reject claims 1 through 4, 6, 15 through 17, 19, 21, 24, 26 and 28 under 35 U.S.C. § 102(b) as being anticipated by Rilitz is affirmed;

c) to reject claims 5, 7, 18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Rilitz is affirmed;

d) to reject claims 1 through 6, 8 through 10, 14 through 17, 19, 21, 24, 26, 28 and 29 35 U.S.C. § 102(e) as being anticipated by Okonski is reversed;

e) to reject claims 7, 18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Okonski is reversed;

f) to reject claims 1 through 10, 14 through 21, 24 and 26 through 29 under 35 U.S.C. § 103(a) as being unpatentable over Smithwick in view of Okonski is reversed; and

g) to reject claims 1 through 10, 14 through 21, 24 and 26 through 29 under 35 U.S.C. § 103(a) as being unpatentable over Smithwick in view of Wright is reversed.

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No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

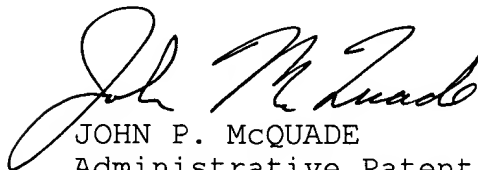
AFFIRMED-IN-PART



IRWIN CHARLES COHEN  
Administrative Patent Judge



NEAL E. ABRAMS  
Administrative Patent Judge



JOHN P. McQUADE  
Administrative Patent Judge

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AFFIRMED IN PART

June 25, 2003